

Our aim was to examine the extent of pathogen transfer into a SVP by puncturing an in vitro contaminated injection membrane and to evaluate techniques to reduce this transmission” Taxbro et al (2019).

Abstract:

Introduction: Reliable venous access is a cornerstone in delivery of cytotoxic drugs, and subcutaneous venous ports (SVPs) are commonly used. Pocket infection is a major complication that can lead to SVP removal and treatment delay. Consensus is lacking whether a suspected port infection is a contraindication to continued use. Our aim was to examine the extent of pathogen transfer into a SVP by puncturing an in vitro contaminated injection membrane and to evaluate techniques to reduce this transmission.

Method: Four pathogens were applied to SVP membranes in concentrations mimicking clinical infection, and the membranes punctured with or without flow through the needle. The port was then flushed with saline, and samples from the outlet were analyzed.

Results: Microorganisms were transported into the SVP when puncturing the contaminated membrane. The number of microorganisms transferred was related to the concentration of microorganisms on the membrane and varied with species. Flow through the needle during insertion reduced the number of bacteria transported through the SVP membrane.

Discussion: Our results indicate that a limited number of pathogens are likely to be introduced into the SVP chamber when puncturing a contaminated membrane. The number of bacteria transferred could be reduced by applying flow during puncture.

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Reference:

Taxbro, K., Mernelius, S., Hammarskjöld, F., Hanberger, H. and Berg, S. (2019) Transfer Rate of Pathogens Through In Vitro Contaminated Venous Port Membranes Varies With Species, Concentration, and Injection Technique. *Journal of the Association for Vascular Access*. 24(3), p.16-22. <https://doi.org/10.2309/j.java.2019.003.002>.